CopperLink™ Ruggedized 50-Mbps Ethernet Extender

Model 2172R

Patton's 2172R extends Ethernet connections at distances up to 5,500 feet over already existing serial infrastructure cabling

Operates Over Twisted Pair

Reduces the cost and hassles of new installations. Utilizes installed voice-grade twisted pairs to eliminate the expense of fiber or Cat5e cabling.

Plug and Play

No configuration or cable hassles during installation with auto-sensing 10/100, full or half duplex, and auto MDI-X.

Full-duplex data-line rate of 100 Mbps

Provides near fiber performance for bandwidth intensive applications

Ruggedized

Operating temperature of -10 to 70°C or -10 to 80°C for 2172/CC

Flexible installation

Wall or DIN mountable

The Patton Model 2172R utilizes pre-existing twisted pair infrastructure enabling twisted pair previously used for legacy systems such as TTL, RS232 and 422/485 to be used for extending or connect Ethernet devices together. With a pair of 2172R's or combined with a 2172, twisted pair can carry an extraordinary bandwidth of 100 Mbps full-duplex (50 Mbps up and downstream). Reusing the already existing infrastructure for Ethernet Networking eliminates the cost of purchasing expensive fiber and Cat5E or greater cabling. Most importantly, it completely eliminates the hassle and sometimes overwhelming expense and downtime of the cable installations.

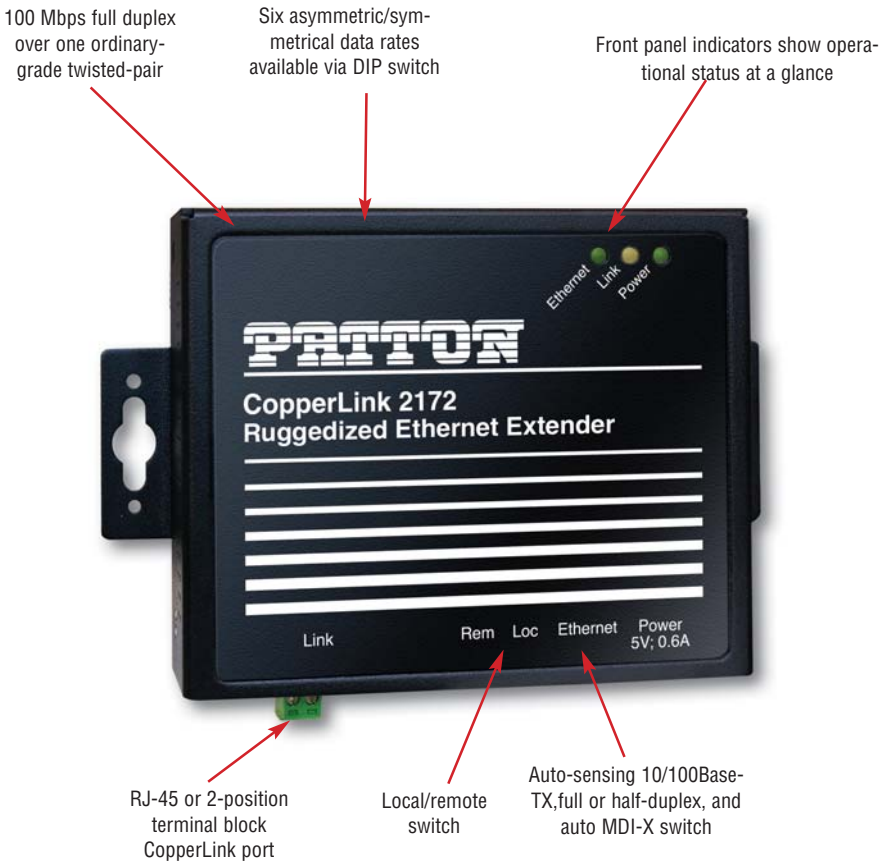
The 2172R was designed to operate in a rugged environment, with temperature ranges from -10 to 70°C, and the option for conformal coating protecting the device from condensing humidity, and operates at -10 to 80°C. The 2172R's aluminum case design allows for users to conveniently mount them either on a wall or DIN.

Visit www.patton.com for more information.

CopperLink™ Ethernet Extenders

Take your network connections faster and farther over existing voice-grade wire with Patton CopperLink™ Ethernet Extenders!

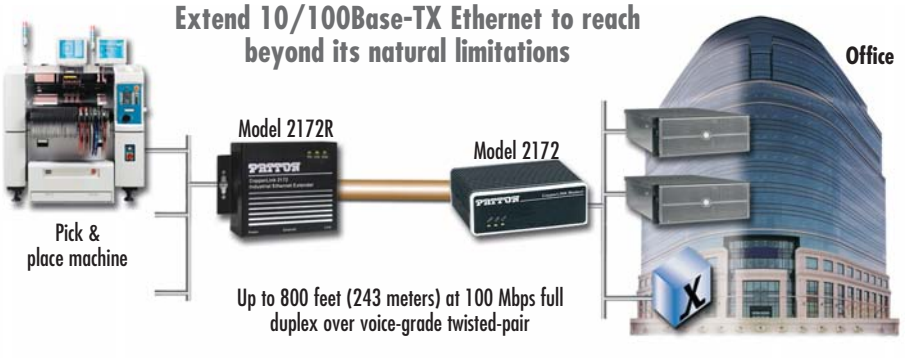
Max. Distance	Max. Speed	Distance at Max. Speed	CopperLink™ Model
1 mile	50 Mbps	800 feet	Model 2172R
1 mile	50 Mbps	800 feet	Model 2172
1.1 miles	16.6 Mbps	3,125 feet	Model 2168
0.75 mile	12 Mbps	4,000 feet	Model 2158
5.7 miles	4.6 Mbps	2.0 miles	Model 2157R
5.7 miles	4.6 Mbps	2.0 miles	Model 2157
5.7 miles	2.3 Mbps	3.1 miles	Model 2156
5 miles	144 kbps	5 miles	Model 2155



PATTON®

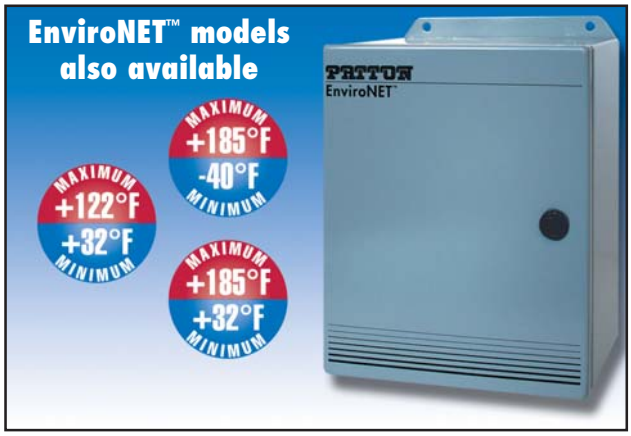
Workgroup Ethernet Extension Application

The Model 2172R multi-rate Ethernet Extenders are ideal for delivering Ethernet links to remote buildings that are beyond the 328-foot (100-meter) distance limit of Ethernet. The 100 Mbps throughput eliminates bandwidth concerns previously experienced with other copper wired transmission technologies. By utilizing existing voice grade copper pairs the expense and hassle of installing low capacitance or fiber cable is no longer required.


Extend 10/100Base-TX Ethernet to reach beyond its natural limitations
Office
Model 2172R
Model 2172
Pick & place machine
Up to 800 feet (243 meters) at 100 Mbps full duplex over voice-grade twisted-pair

Asymmetrical Line Rates		
Line Rates (AWG 24/0.5 mm)		
Upstream in Mbps	Downstream in Mbps	Distance in ft (m)
1	4	6,000 (1,830)
1	16	4,000 (1,200)
2	50	2,000 (610)

Symmetrical Line Rates		
Line Rates (AWG 24/0.5 mm)		
Upstream in Mbps	Downstream in Mbps	Distance in ft (m)
10	10	4,000 (1,200)
25	25	2,000 (610)
50	50	800 (245)



Specifications*

CopperLink line interface: RJ-45 (pin 4 = ring; pin 5 = tip); two position terminal block

Ethernet interface: 8-position shielded RJ-45. Auto-sensing 10/100Base-T with half or full-duplex operation. DIP switch capable of disabling 100-Mbps full-duplex for equipment that does not support 802.3X (Pause Packets)

Protocol: Transparent to high layer protocol. Supports 802.1Q VLAN tagging

Modulation: Quadrature Amplitude Modulation (QAM) 4-band

Duplexing Method: FDD (Frequency Division Duplexing)

Frequency Range: CopperLink: 0–12 MHz

Transmission: CopperLink line rate: Up to 100 Mbps full duplex

Surge suppression: CopperLink line transient peak surge maximum: 200A (8/20µs)

Front Panel Indicators: Power, Link, Ethernet

Power Supply: External AC and DC options: 120VAC, and universal input (UI)—100–240 VAC, or optional -48 VDC, -24 VDC, or -12 VDC

Compliance: FCC Part 15A, CE Mark, EMC Directive 89/336/EEC, Low-Voltage Directive 73/23/EEC

Temperature

Standard: -10 to 70°C

Conformal Coated: -10 to 80°C

Humidity

Standard: Up to 90% non-condensing

Conformal Coated: 85% condensing humidity from -10 to 35°C

Dimensions: 1.5H x 4.13W x 3.75D in. (3.81H x 10.5W x 9.53D cm)

Weight: 0.4 lbs (0.18 kg) without power supply

* Specifications subject to change without notice.

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